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Claims

What is claimed is:

1. An electrical connector for a fuel injector assembly comprising:
a base portion, a stem portion and at least one electrical contact extending
5 from the base portion to the stem portion; and

said base portion having a front wall, a bottom wall, two side walls, and a
sleeve extending between the side walls of said base portion and cooperating with a
locking pin to secure the electrical connector to a fuel injector assembly.

10 2. The electrical connector of claim 1, wherein said base portion and said
stem portion are integrally formed from a single polymer mold.

3. The electrical connector of claim 1, wherein said base portion including
deformable crush pads that deform as said base portion is inserted into a connector cavity
15 in a fuel injector assembly to provide a tight fit between the electrical connector and the
fuel injector assembly

4. The electrical connector of claim 1, wherein the sleeve has tapered ends
such that an outer face of the tapered end is flush with the sidewall of said base portion
20 and an inner face of the tapered end lies within said base portion; and

the outer face of the tapered end has a larger diameter than the inner face
of the tapered end, and the inner face of the tapered end has a diameter slightly larger
than the diameter of the locking pin so that the locking pin may bend within the sleeve.

25 5. The electrical connector of claim 1, wherein the ends of the sleeve are
recessed within the body of the base portion.

6. The electrical connector of claim 1, wherein the sleeve of said base
portion has sleeve openings that are offset from corresponding openings in a connector
30 cavity of the fuel injector assembly, and insertion of the locking pin into the sleeve

openings and the connector cavity openings urges the base portion into the connector cavity.

5 7. The electrical connector of claim 1, wherein the locking pin is adapted to be inserted into the sleeve to secure the electrical connector to a fuel injector assembly and insertion of the locking pin into the sleeve induces a curve in the locking pin.

10 8. The electrical connector of claim 1, wherein the front wall of said base portion is concave to accommodate an expansion of an adjacent wall of the connector cavity and prevent said base portion from moving upon said expansion.

9. The electrical connector of claim 1, wherein said stem portion includes a flat identification platform for placing indicia on the electrical connector.

15 10. The electrical connector of claim 1, wherein the at least one electrical contact is located on the bottom surface of said base portion to engage a corresponding contact in the fuel injector assembly, the bottom surface including a sealing member placed in a cavity around the electrical contact to seal the electrical contact.

20 11. An electrical connector for a fuel injector assembly comprising:
a base portion, a stem portion and at least one electrical contact extending from the base portion to the stem portion;

said base portion having a front wall, a bottom wall and two side walls;
and

25 said base portion including deformable crush pads that deform as said base portion is inserted into a connector cavity in a fuel injector assembly to provide a tight fit between the electrical connector and the fuel injector assembly.

30 12. The electrical connector of claim 11, wherein said base portion and said stem portion are integrally formed from a single polymer mold.

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13. The electrical connector of claim 11, wherein the front wall of the base portion is concave.

5 14. The electrical connector of claim 11, wherein said stem portion includes a flat identification platform for placing indicia on the electrical connector.

10 15. The electrical connector of claim 11, wherein the at least one electrical contact is located on the bottom surface of said base portion to engage a corresponding contact in the fuel injector assembly, the bottom surface including a sealing member placed in a cavity around the electrical contact to seal the electrical contact.